

**REMARKS**

Applicants respectfully acknowledge receipt of the Office Action mailed January 11, 2006.

In the Office Action, the Examiner: (1) rejected claim 2 under 35 U.S.C. § 112, first paragraph; (2) rejected claims 4-8 under 35 U.S.C. § 112, second paragraph; and (3) rejected claims 1-8 under 35 U.S.C. § 103(a) as being unpatentable over *Yoshida et al.* (Japanese Pub. No. 06-085325) in view of *Itou et al.* (Japanese Pub. No. 06-204568).

By this Amendment, Applicants submit a substitute Specification, amend the Abstract, amend claims 1-4, 6, and 7, cancel claims 5 and 8, without prejudice or disclaimer, and add new claims 9-14 to better define the invention. Upon entry of this amendment, claims 1-4, 6, 7, and 9-14 will remain pending in this application. Of these claims, claims 1 and 10 are independent.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to the Specification, the Abstract, claims 1-4, 6, and 7, and the addition of new claims 9-14. No new matter has been introduced.

Applicants traverse the rejections above and respectfully request reconsideration for at least the reasons that follow.

**I. 35 U.S.C. §112, FIRST PARAGRAPH REJECTION**

Claim 2 stands rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. The Examiner's rejection of claim 2 has been rendered moot by the amendment to claim 2. Applicants therefore request that the rejection of claim 2 under 35 U.S.C. § 112, first paragraph, be withdrawn.

**II. 35 U.S.C. §112, SECOND PARAGRAPH REJECTION**

Claims 4-8 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants submit that the rejection of claims 5 and 8 has been rendered moot by the cancellation of claims 5 and 8, without prejudice or disclaimer. With respect to claims 4, 6, and 7, the Examiner's rejection has been rendered moot by the amendments to claims 4, 6, and 7. Applicants therefore request that the rejection of claims 4-8 under 35 U.S.C. § 112, second paragraph, be withdrawn.

**III. 35 U.S.C. § 103(a) REJECTION**

Claims 1-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Yoshida* in view of *Itou*. Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that independent claim 1 patentably distinguishes over *Yoshida* and *Itou* at least for the reasons described below. With respect to claims 5 and 8, Applicants submit the Examiner's rejection has been rendered moot by the cancellation of claims 5 and 8, without prejudice or disclaimer.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of the three

requirements must "be found in the prior art, and not be based on applicant's disclosure." See M.P.E.P. §2143, 8th ed., February 2003.

*Yoshida* discloses a method for manufacturing a LED device, including a LED chip 4, lead frames 2 and 3, a base section 5, a concave reflector 5a, and a lens 6. An upper limit side 2a of the lead frame 2 is electrically connected by wire bonding to an upper limit side 3a of the lead frame 3. The LED chip 4 is electrically fixed by die bonding to the upper limit side 2a of the lead frame 2. (*Yoshida*, [0002]-[0004] and Fig. 3).

However, as admitted by the Examiner, *Yoshida*, at least, "does not disclose wherein the opaque material [i.e. the base section 5] is plastic." (*Office Action*, p. 4, line 12). Additionally, *Yoshida* fails to teach or suggest wherein the LED device includes "at least one protrusion extending from a side surface of the housing to provide heat dissipation," as required by Applicants' independent claim 1 (emphases added).

*Itou* discloses a LED device 1 including a LED chip 4, lead frames 2 and 3 with overhang sections 2a and 3a, a base section 5, and a lens section 6. Overhang sections 2a and 3a mount the surface mount mold LED 1 to a printed circuit board. (*Itou*, [0002]-[0003] and Fig. 3).

*Itou*, however, fails to teach or suggest, at least, wherein the LED device includes "at least one protrusion extending from a side surface of the housing to provide heat dissipation," as required by Applicants' independent claim 1 (emphases added).

Assuming *arguendo* overhang sections 2a and 3a are considered to be "protrusions extending from a side surface of the housing," which Applicants do not necessarily concede, overhang sections 2a and 3a are not separate, individual

structures formed on a side surface of a housing, provided for heat dissipation. They appear to be mere extensions of lead frames 2 and 3, used to mount the LED device 1, through soldering, to a printed circuit board.

Accordingly, with respect to independent claim 1, both *Yoshida* and *Itou* fail to teach or suggest, the claimed combination including, *inter alia*:

“at least one protrusion extending from a side surface of the housing to provide heat dissipation.” (emphasis added)

In view of the above described deficiencies of *Yoshida* and *Itou*, claim 1 is allowable over the Examiner’s proposed combination of the references, and claims 2-4, 6, and 7 are allowable at least due to their direct dependence from claim 1. Applicants therefore request that the rejection of claims 1-8 under 35 U.S.C. § 103(a) be withdrawn.

#### **IV. NEW CLAIMS**

New claim 9 depends from claim 1 and is allowable at least for the same reasons claim 1 is allowable.

New independent claim 10, though of different scope from claim 1, recites limitations similar to those set forth above with respect to claim 1. Specifically, claim 10 recites in pertinent part “at least one protrusion extending from a side surface of the housing to provide heat dissipation.” Applicants note that this feature is neither disclosed nor suggested by the cited art, and therefore claim 10 is also separately patentable.

New claims 11-14 depend from claim 10 and are allowable at least for the same reasons claim 10 is allowable. In addition, each of the dependent claims may recite

unique combinations that are neither taught nor suggested by the cited art, and therefore each also are separately patentable.

## **V. CONCLUSION**

Applicants respectfully submit that independent claims 1 and 10 are in condition for allowance. In addition, claims 2-4, 6, 7, 9, and 11-14 are in condition for allowance at least due to their corresponding dependence from independent claims 1 and 10.

The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: May 11, 2006

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**Attachments:** A Marked-Up Version of a Substitute Specification (6 pages); and  
A Clean Copy of the Substitute Specification (6 pages)